

State of California
AIR RESOURCES BOARD

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EXECUTIVE ORDER U-R-7-28

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DETROIT DIESEL CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Detroit Diesel Corporation 1998 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Crane, Loader, Tractor, Dozer, Pump, Compressor, and Generator Set

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacements in Liters</u>	<u>Exhaust Emission Control Systems and Special Features</u>
WDDXL12.1TFM (V-92TA)	9.0 / 12.1	Turbocharger Charge Air Cooler Smoke Puff Limiter

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matters (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

<u>Engine Family</u>	<u>Exhaust Emission (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
	<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
WDDXL12.1TFM (V-92TA)	0.4	0.6	6.7	0.1	16	3	28

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 26th day of February 1998.


R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

Manufacturer: Detroit Diesel Corporation Process Code: New Submission

EPA Engine Family: WDDXL12.1TFM Manufacturer Family Name: V-92TA

Engine Code	Engine Model	BHP@RPM (SAE Gross)	Fuel Rate: mm/stroke @ peak HP (for diesel only)	Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	Torque @ RPM (SEA Gross)	Fuel Rate: mm/stroke@peak torque	Fuel Rate: (lbs/hr)@peak torque	Emission Control Device Per SAE J1930
9G95	6V-92TA	380 @ 2300	98.3	149.3	1090 @ 1200	113.7	87.9	EM SPL TAW
9G95	6V-92TA	360 @ 2100	98.9	136.8	1090 @ 1200	113.7	87.9	EM SPL TAW
9G90	6V-92TA	340 @ 2100	94.2	129.9	1015 @ 1200	104.6	82.1	EM SPL TAW
9G95	8V-92TA	490 @ 2300	96.2	196.1	1450 @ 1200	111.7	118.9	EM SPL TAW
9G95	8V-92TA	480 @ 2100	98.6	183.4	1450 @ 1200	111.7	118.9	EM SPL TAW
9G90	8V-92TA	450 @ 2100	91.2	168.7	1330 @ 1200	102.2	108.0	EM SPL TAW
9G85	8V-92TA	425 @ 2100	87.4	161.6	1250 @ 1200	97.7	103.3	EM SPL TAW
6750	8V-92TA	490 @ 2100	103.1	192.1	1400 @ 1500	111.0	147.7	EM SPL TAW

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